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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,890	06/30/2000	Klaus T. Reichel	4100-194	1213

7590 12/24/2003
Thomas C Pontani Esq
Cohen Pontani Lieberman & Pavane
Suite 1210
551 Fifth Avenue
New York, NY 10176

EXAMINER

WILLIAMS, KEVIN D

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 12/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/607,890

Applicant(s)

REICHEL, KLAUS T.

Examiner

Kevin D. Williams

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnett (US 45,144,811) in view of Knauer (US 6,050,190), Ghosh (US 5,925,496) and Applicant's admitted prior art (AAPA).

Barnett teaches a printing unit cylinder for a rotary printing machine, said printing unit cylinder being a transfer cylinder 52 for receiving a rubber blanket (col. 4, line 15) in which localized temperature differences occur, said printing unit cylinder comprising a body having a barrel 52 as a centerpiece. Barnett provides a discussion of how increases in temperature can lead to thermal expansion of printing cylinders and in turn a degradation of the print quality (col. 3, line 65 to col. 4, line 23). Barnett discloses that because printing cylinders are made from steel and aluminum, which have relatively high linear coefficients of expansion, thermal expansion cannot be avoided. Barnett therefore discloses an adjustment mechanism to relieve the pressure that results from expansion of the printing cylinders.

Barnett does not teach the entire transfer cylinder or the barrel being made completely of a metallic material having a linear coefficient of expansion of about $\alpha < 1.5 \times 10^{-6} \text{ K}^{-1}$ in a temperature range of from 20° to about 60°. Barnett also does not

disclose an iron alloy having about 36% nickel by weight. Barnett only provides a schematic drawing of the printing unit and therefore does not disclose the journals of the transfer cylinder, where one journal is on each side of the barrel of the cylinder.

Ghosh discloses several metallic materials that are advantageous in producing printing cylinders and that printing cylinders can be composed of one or more metals including iron and nickel (col. 7, lines 57-61).

Applicant's admitted prior art (pg. 7, lines 1-14) discloses a known metallic material comprising iron and nickel that comprises an iron alloy having about 36% nickel by weight and having a linear coefficient of expansion of about $\alpha < 1.5 \times 10^{-6} \text{ K}^{-1}$ in a temperature range of from 20° to about 60°.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Barnett to have the entire cylinder of Barnett be made of the material disclosed in AAPA, in order to avoid thermal expansion of the transfer cylinder as discussed by Barnett.

Knauer teaches two journals, a respective one of the journals being on each side of a barrel (Figs 5a, 5b, and 5c).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Barnett to have journals as disclosed by Knauer, in order to stably mount the cylinder in a frame for utilization in a printing press.

Response to Arguments

3. Applicant's arguments with respect to claims 1-5, 7, and 8 have been considered but are moot in view of the new ground(s) of rejection.

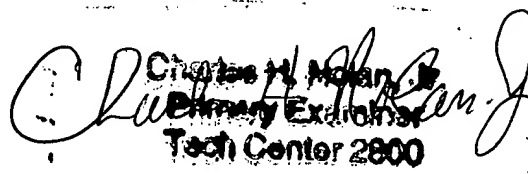
Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin D. Williams whose telephone number is (703) 305-3036. The examiner can normally be reached on Monday - Friday, 8:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (703) 305-6619. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

KDW
December 22, 2003


Charles H. Molan, Jr.
Primary Examiner
Tech Center 2800